

REMARKS

Claims 1, 13, 25, and 37 are all the claims pending in the application. Claims 1-37 stand rejected on prior art grounds. Claims 1, 13, 25, and 37 are amended herein. Claims 2-12, 14-24, and 26-36 are cancelled herein without prejudice or disclaimer. The subject matter of claims 2-12, 14-24, and 26-36 are now incorporated into claims 1, 13, and 25, respectively. Applicants respectfully traverse the rejections based on the following discussion.

I. The Prior Art Rejections

Claims 1-37 stand rejected under 35 U.S.C. §102(e) as being anticipated by Lindblad et al. (U.S. Publication No. 2004/0073541), hereinafter referred to as “Lindblad”. Applicants respectfully traverse these rejections based on the following discussion.

Lindblad teaches a method for processing queries for a document of elements. The document includes a plurality of subsections where each subsection includes at least a portion of elements in the document. The method comprises receiving a query for a path of elements in the document of elements; determining a plurality of step queries from the query, each step query including at least a part of the path of elements; for each step query in the plurality of step queries, determining one or more subsections that include elements that correspond to a step query; and determining at least one subsection that includes the path of elements of the query. A result for the query is generated using the at least one subsection.

The claimed invention, as provided in independent claims 1, 13, 25, and 37 contain features, which are patentably distinguishable from Lindblad. Applicants’ Figure 2(a) clearly illustrates the structural relationship between the index 210, parser 230, processor 220, and

buffer 240, and such a structural relationship allows the index 210 to be more compact in size than conventional systems (see Applicants' specification, page 14, lines 1-2, paragraph [0032]).

Lindblad does not teach that the buffer is external to the index, parser, and processor. In fact, the Hash Key Generator 210 of Lindblad, which the Office Action indicates as being analogous to the Applicants' claimed buffer is clearly located internal to the processor 204 (see FIG. 9 of Lindblad). This structural difference renders the Applicants' claimed invention patentably distinct from the Applicants' claimed invention. Furthermore, such a feature is not obvious in light of Lindblad because there is no suggestion in Lindblad of why one of ordinary skill in the art would desire that the Hash Key Generator 210 be external to the Processor 204. Furthermore, the Office Action provides no reason as to why this would be obvious. In fact, such a configuration would not be obvious in light of Lindblad because of all the various components (Step Query Generator 206, Canonicalizer 208, Step Query Result Generator 214, and Hash Key Generator 210) given in the processor 204 of the server 200, there would be no motivation for someone of ordinary skill in the art to select only the Hash Key Generator 210 to be external to the processor 204. In fact, one of ordinary skill in the art, upon reviewing Lindblad's teaching, would likely not externalize the Hash Key Generator 210 from the Processor 204 given the complexity it would add to the circuitry of the server 200 and extra space requirements.

Additionally, contrary to the conclusion reached in the Office Action, Lindblad does not teach that the parser is external to the index. In Lindblad, the PostingList is embodied with a "skip-list" structure that facilitates the skipping function. This PostingList and "skip-list" structure is located within the index 213 in Lindblad. For example, paragraph [0107] of

Lindblad states:

In one embodiment, the format uses unary-log-log variable length bit encodings for subtree id's and scores. Furthermore, both subtree id's and scores may be kept in a differential form where each Posting stores only the encoded difference from the preceding subtree id and score. Large PostingLists typically have long strings of consecutive subtree id's with scores that are mostly equal. The PostingList formats encode the consecutive runs using only one or two bits for the delta(id) (the id differential), and delta(score) (the score differential). Large PostingLists are stored with markers containing sufficient information to allow a search process to skip forward across blocks of Postings (a "skip-list" structure). The skip-list block size a configurable parameter.

Next, Lindblad teaches that the PostingLists are internal to the index 213, which is an opposite teaching of the Applicants' claimed invention. Particularly, paragraph [0103] of

Lindblad states:

In one embodiment, index 213 is an inverted file index. The inverted file index maps terms to PostingLists. The terms correspond to textual units extracted from a collection of documents 202 or document fragments from documents 202, and PostingLists describe where and how often each term appeared within a given document or document fragment from documents 202.

This internal structural relationship of the index 213 and PostingLists is further substantiated in paragraph [0150] of Lindblad, which states, in part:

[I]ndex 213 stores, for each term, at a location determined by the hash key of that term, a PostingList containing references to the subtrees containing the term along with a normalized frequency count (score) that approximates the number of occurrences of the term within the subtree.

Furthermore, paragraph [0174] of Lindblad reiterates that the index 213 contains the PostingLists:

A search is performed for the intersection of Q1, Q2, and Q3,

which returns a sequence of nodes labeled C. The PostingLists for the canonicalized terms corresponding to Q1, Q2, and Q3 are retrieved from index 213, and then scanned for common subtree ids. The PostingList skip list structure is used to prune the search for common subtree ids. A PostingList block will be skipped over in the event that the `maxSubTreeID` stored in the block is actually smaller than any of the currently smallest remaining subtree id in the other PostingLists.

Therefore, the Applicants' claimed invention contains features that are not taught in Lindblad, and therefore, are patentably distinct from Lindblad given that Lindblad provides an opposite teaching to the Applicants' claimed invention. Lindblad does not teach the features defined by amended independent claims 1, 13, 25, and 37 and as such, claims 1, 13, 25, and 37 are patentable over Lindblad. Thus, the Applicants respectfully request that these rejections be reconsidered and withdrawn. Moreover, the Applicants note that all claims are properly supported in the specification and accompanying drawings and no new matter is being added, which would require further search or consideration. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

II. Formal Matters and Conclusion

With respect to the rejections to the claims, the claims have been amended, above, to overcome these rejections. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims.

In view of the foregoing, Applicants submit that claims 1, 13, 25, and 37, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to

issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0441.

Respectfully submitted,

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